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Ref. No.		Name of Star.	Mean R.A. 1835.			No. of Obs.		Pre-cession.	Diff. from Gr. 1112 Stars.	Diff. from A.S.C.
			h	m	s	E	W	s	s	s
61	A	Aquilæ	19	11	57·44	6	4	+2·796	...	+0·18
62	*b*	Aquilæ	19	17	6·14	6	4	+2·871	+0·09	−0·34
63	μ	Aquilæ	19	26	1·57	7	3	+2·915	+0·10	−0·31
64	σ	Aquilæ	19	31	3·07	6	4	+2·960	+0·01	+0·34
65	τ	Aquilæ	19	56	4·73	5	5	+2·929	...	−0·19
66	ϵ	Delphini	20	25	19·79	2	3	+2·864	0·00	−0·34
67	β	Delphini	20	29	48·59	2	3	+2·803	+0·20	−0·30
68	γ	Equulei	21	2	19·00	5	5	+2·912	+0 05	−0·17
69	α	Equulei	21	7	34·34	5	4	+2·995	+0·26	−0·05
70	T′	Pegasi	21	30	16·12	4	2	+2·997	−0·15	−0·38
71	θ	Pegasi	22	1	52·70	4	5	+3·006	−0·21	−0·05
72	ξ	Pegasi	22	38	27·24	4	6	+2·975	−0·17	−0·35
73	*l*	Pegasi	22	58	41·82	2	5	+3·015	...	−0·19
74	*q*	Pegasi	23	20	48·90	3	5	+3·020	...	−0·44
75	O	Pegasi	23	34	58·81	3	5	+3·044	...	−0·40
76	ω	Piscium	23	50	50·56	6	4	+3·062	−0 04	−0·02

Note.—The following corrections should be made in the columns giving comparisons with Pond's Catalogue and the Catalogue of the Astronomical Society.—Eds. *M.N.*

			s					s
No. 1.	Difference	from A.S.C.	+0·07	No. 30.	Difference	from	A.S.C.	−0·10
4.	,,	,,	−0·03	61.	,,	,,	,,	+0·15
7.	,,	,,	−0·13	67.	,,	,,	Gr. 1112	−0·20
8	,,	,,	−0·43	69.	,,	,,	A.S.C.	−0·08
28.	,,	,,	+0·65	71.	,,	,,	Gr. 1112	−0·21

Catalogue of Right Ascensions of 125 *Stars.* By Robert Snow.

The accompanying right ascensions were observed with a transit instrument of $3\frac{1}{2}$ feet focal length and aperture $2\frac{3}{4}$ inches, made by Mr. Simms.

It has seven vertical spider's lines in its principal focus, the mean equatorial interval of which is $11^{s}{\cdot}81$, and has an additional vertical wire movable in a direction parallel to the rest by means of a micrometer screw, one revolution of which corresponds to three seconds of time at the equator. The instrument is mounted on stone pillars let into a thick flag-stone fixed on a brick pier worked up in cement resting on a foundation of hard flinty gravel. It is very easily reversed on its Y's,

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and possesses optical power sufficient to allow of observing *Polaris* or γ *Draconis* when on the meridian with the Sun. The usual observing power is 130. The view is uninterrupted from the northern to the southern horizon. Numerical corrections have been applied to the observations for instrumental error, and tables for the purpose formed for the known and for the catalogue stars, agreeably to Mr. Epps's paper on the subject.

The instrument, from its situation and construction, has been found to be stable to a degree that is very satisfactory, but not without perceptible alterations from time to time, both in level and azimuth. The level error has of late been kept small by making occasional use of the adjusting screws, the proper numerical correction being afterwards applied to the remaining error. The collimation of the middle wire was in the first instance adjusted, and is occasionally examined, by referring it, with the assistance of the micrometer wire, to a meridian mark distant about three-quarters of a mile; and for a like purpose by night a tolerably well-defined artificial star has been formed by a bright reflecting lamp, at the same distance, shining through a circular aperture of half an inch. The error of collimation of the mean of the seven wires has been found by observing groups of known stars in reversed positions of the instrument, and comparing the clock errors so obtained.

The azimuthal adjusting screws have been rarely touched; the error, however, has never been inconveniently large, and has also had a numerical correction applied to it. This error has been found from consecutive transits of *Polaris*, and by combining *Polaris* with another known star, generally to the south of the equator; λ and δ *Ursæ Min.* have also both been similarly made use of, but much less frequently. A specimen of the printed forms made use of for registering the observations is subjoined. They have the disadvantage of rendering the observation books rather voluminous, but present great advantages in their neatness and regularity, and the ease with which they are referred to when necessity for after-discussion arises.

Polaris having been observed ten times over all the wires, the difference of the times of passing each wire from the mean of the whole was found and reduced to the equator, care having been taken to correct for the curved path of the star when at a distance from the middle wire. Thus a ready means of reducing all or any of the wires severally to the mean of the seven is obtained for stars anywhere situated, and is always resorted to in the case of a broken observation. No one wire is considered more valuable than another.

The 100 principal stars of the N.A. were employed for obtaining the clock errors, and with very few exceptions, each observation of a catalogue star is governed by a clock error derived from a mean of from three to six or eight known stars. The transit clock is a new one by Molyneux, and has the usual dead-beat escapement and mercurial pendulum.

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The latitude of the place has been before stated to be 51° 15′ 58″ north, from a mean of twenty observations of stars on the prime vertical, made with a small transit instrument turned east and west. The difference of longitude between it and Mr. Wrottesley's observatory has been found by transporting between the two places a pocket mean-time chronometer by Baird belonging to Mr. Wrottesley, two box chronometers by Molyneux going mean time, and a box chronometer by Molyneux going sidereal time.

The comparisons of the chronometers with the two transit clocks were made as follows. On Thursday (May 26, 1836) at Blackheath and at Ashurst; on Saturday (May 28) at Ashurst, and at Blackheath and again at Ashurst; on Monday (May 30) at Ashurst and at Blackheath. The comparisons of the clocks and chronometers and the observations of stars determining the clock errors at both places were made by the same person. It will be sufficient to give the differences of longitude as obtained from the four chronometers and the four journeys severally, using the mean rate of each chronometer for five days.

Thursday.

	m	s
No. 1055	1	12·32
No. 1119	1	12·00
No. 1115	1	12·64
Baird ...	1	13·39
Mean ...	1	12·34

Saturday Morning.

	m	s
No. 1055	1	13·02
No. 1119	1	13·35
No. 1115	1	12·47
Baird ...	1	13·23
Mean ...	1	13·02

Saturday Evening.

	m	s
No. 1055	1	12·79
No. 1119	1	12·68
No. 1115	1	13·26
Baird ...	1	11·87
Mean ...	1	12·63

Monday.

	m	s
No. 1055	1	13·09
No. 1119	1	13·88
No. 1115	1	13·16
Baird ...	1	13·76
Mean ...	1	13·47

Final Mean.

	m	s
No. 1055	1	12·34
No. 1119	1	13·02
No. 1115	1	12·63
Baird ...	1	13·47
Mean ...	1	12·86

But on Saturday the four chronometers were carried both to and from the two places; using, therefore, only the comparisons of Saturday and the proportional parts of the rates of the chronometers for that day, the four following differences of longitude are obtained:

Saturday.

	m	s
No. 1055	1	12·78
No. 1119	1	13·04
No. 1115	1	12·59
Baird ...	1	12·59
Mean ...	1	12·75

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On the whole the difference of longitude between the two places may be fairly stated at 1^{m} 12^{s}·8, Ashurst, west of Blackheath.

		No in. A.S.C.	Star.	Mag.	R.A. Jan. 1, 1830.	Precession.	No. of Obs.	Greater than A.S.C.	Greater than Wrottesley.
					h m s	s		s	s
	1	19	Piscium	6·7	0 9 4·01	+3·069	2	+0·26	−0·09
	2	28	*t* Piscium	6	0 16 41·46	+3·070	2	+0·41	0·00
	3	35	28 Andromedæ	6	0 21 9·74	+3·136	1	+0·06	−0·40
	4	47	Piscium	7	0 25 22·53	+3·092	2	+0·23	−0·01
	5	82	*y* Piscium	5·6	0 40 3·41	+3·135	2	+0·19	...
	6	108	ψ′ Piscium	5·6	0 56 34·80	+3·191	2	−0·13	...
*	[7	183	Piscium	7	1 31 38·15	+3·140	3	+0·49	−0·07]
	8	212	Piscium	7	1 50 20·46	+3·194	3	+0·35	−0·01
	9	398	F_1 Tauri	6·7	3 32 31·48	+3·439	1	+0·35	+0·09
	10	401	F_2 Tauri	7	3 33 58·13	+3·440	1	+0·43	−0·02
	11	422	Tauri	7	3 39 56·25	+3·504	2	+0·19	+0·03
	12	429	Tauri	6	3 43 27·41	+3·402	2	+0·81	−0·03
	13	593	Tauri	5·6	4 57 45·24	+3·541	3	+0·46	...
	14	594	Tauri	6	4 57 45·50	+3·642	3	+0·21	−0·07
	15	609	y_3 Orionis	6·7	5 1 56·07	+3·435	3	+0·36	−0·06
	16	634	22 Aurigæ	7	5 12 37·20	+3·786	4	+0·30	+0·02
*	17	...	[B.A.C. 1657]	...	5 12 51·47	+3·057	4	...	...
	18	635	*o*′ Orionis	5·6	5 13 5·40	+3·055	5	+0·77	...
	19	636	Aurigæ	7	5 13 41·36	+3·856	2	+0·15	−0·05
*	20	637	Aurigæ	7	5 13 41·59	+3·854	3	+0·07	−0·06
	21	716	P Tauri	5·6	5 40 0·15	+3·365	3	+0·74	...
	22	726	56 Orionis	5·6	5 43 36·95	+3·110	7	+0·13	...
*	23	743	Aurigæ	7	5 50 19·50	+3·765	6	+0·13	−0·04
	24	748	χ_3 Orionis	5·6	5 53 23·68	+3·546	4	+0·17	...
	25	755	Orionis	7	5 56 56·19	+3·440	5	+0·20	+0·01
	26	762	4 Geminorum	7	6 0 11·10	+3·639	5	+0·43	−0·04
*	27	779	8 Geminorum	7	6 5 55·98	+3·663	5	+0·59	−0·17
	28	792	Geminorum	7	6 14 15·43	+3·649	3	+0·22	+0·14
*	29	805	[B.D. 20°, 1442]	9·1	6 19 3·10	+3·588	1	+1·16	−0·67
	30	825	25 Geminorum	7	6 30 37·96	+3·782	3	+0·68	+0·14

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		No. in A.S.C.	Star.		Mag.	R.A. Jan. 1, 1830.			Precession.	No. of Obs.	Greater than A.S.C.	Greater than Wrottesley.
						h	m	s	s		s	s
	31	865		Geminorum	7	6	50	4·60	+3·446	3	+0·30	−0·01
	32	889	*n*	Geminorum	7	7	4	17·80	+3·671	3	+0·33	−0·04
*	33	908	58	Geminorum	7	7	13	14·90	+3·613	4	+0·85	+0·20
*	[34	917	β	Canis Min.	3	7	17	55·88	+3·259	22	+0·67	...]
	35	919	*b′*	Geminorum	5·6	7	18	44·45	+3·750	3	+0·57	...
	36	934		Geminorum	7	7	27	5·46	+3·533	3	+0·44	−0·06
	37	939		Geminorum	7	7	29	1·14	+3·853	3	...	+0·09
	38	956	B	Geminorum	7	7	38	23·27	+3·598	3	+0·68	+0·20]
	39	967	*l*	Geminorum	6·7	7	45	44·26	+3·511	3	+0·20	+0·21
	40	975		Cancri	7	7	50	5·34	+3·357	3	+0·14	+0·14
	41	1004		Cancri	7	8	4	26·68	+3·444	3	+0·11	+0·07
	42	1080		Cancri	7	8	41	1·97	+3·412	3	+0·26	+0·19
	43	1108	78	Cancri	7	8	59	30·01	+3·379	3	+0·74	+0·26
	44	1119	K′	Hydræ	6	9	4	2·39	+2·964	3	+0·71	+0·08
	45	1128		Leonis	7	9	8	37·52	+3·265	3	+0·40	−0·01
*	46	1132		Leonis	7	9	11	15·27	+3·523	3	−1·77	...
	47	1173		Leonis	7	9	33	50·74	+3·373	3	+0·62	+0·21
	48	1180	20	Leonis	7	9	40	18·52	+3·377	5	+0·27	+0·25
	49	1198		Leonis	6·7	9	53	19·43	+3·362	3	+0·18	+0·15
	50	1202		Leonis	7	9	56	26·97	+3·272	4	+0·24	+0·17
	51	1217		Leonis	7	10	5	7·53	+3·328	3	−0·04	+0·08
	52	1239	*i*	Sextantis	6	10	17	56·09	+3·067	3	+0·10	+0·09
	53	1246	K	Sextantis	6	10	20	50·73	+3·050	3	+0·51	+0·08
	54	1263	50	Leonis	6·7	10	29	46·96	+3·225	3	+0·15	+0·13
	55	1316	*p*4	Leonis	7	11	0	32·96	+3·066	5	+0·23	+0·12
*	56	1336		Leonis	7	11	14	35·79	+3·073	4	+0·23	+0·22
	57	1348		Leonis	7	11	19	12·52	+3·065	2	+0·03	+0·01
	58	1364		Virginis	7	11	29	43·21	+3·063	4	+0·49	+0·18
	59	1383		Virginis	7	11	49	31·23	+3·073	5	+0·33	+0·25
	60	1385	*b*	Virginis	5·6	11	51	14·61	+3·072	2	+0·27	...
	61	1399	*s*	Virginis	7	12	1	23·49	+3·067	5	+0·29	+0·16
	62	1459		Virginis	6·7	12	29	59·18	+3·079	3	−0·07	+0·13
	63	1518		Virginis	7	13	5	18·18	+3·053	3	+0·12	+0·18
	64	1538	*w*	Virginis	5·6	13	20	6·76	+2·948	3	+0·14	...
	65	1540		Virginis	7	13	20	31·59	+3·072	2	−0·06	0·00

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						h	m	s	s		s	s
*	66	1548	77	Virginis	7	13	24	32·33	+3·125	3	+0·24	+0·18
	67	1551	l^3	Virginis	6	13	26	41·08	+3·107	6	+0·13	+0·03
	68	1561		Virginis	7	13	36	2·76	+3·133	10	+0·13	+0·11
	69	1601		Virginis	7	13	55	21·98	+3·164	5	+0·12	+0·04
	70	1638	N^1	Virginis	6·7	14	18	29·49	+3·139	3	+0·40	+0·06
*	71	1651		Libræ	6·7	14	27	57·38	+3·233	5	−2·21	−0·63
*	72	1709		Libræ	7	14	56	21·10	+3·456	3	+0·41	+0·14
	73	1721	i^1	Libræ	5·6	15	2	32·90	+3·400	3	−0·04	...
	74	1723	i^2	Libræ	6·7	15	3	38·95	+3·399	3	−0·06	−0·05
	75	1725	τ	Libræ	7	15	4	59·08	+3·365	3	+0·15	+0·10
*	76	1752		Libræ	7	15	20	35·86	+3·375	1	+1·26	+0·70
	77	1758		Libræ	6·7	15	22	51·63	+3·426	6	+0·13	−0·01
	78	1850	c^2	Scorpii	5	16	1	50·91	+3·673	1	−0·54	...
	79	1857	χ	Scorpii	6	16	4	27·21	+3·304	5	+0·02	−0·04
	80	1865		Ophiuchi	6	16	7	59·28	+3·141	3	...	+0·09
*	81	1918	g	Draconis	5	16	39	46·06	+0·387	5	+1·09	...
	82	1924		Scorpii	6·7	16	43	23·60	+3·531	3	+0·07	+0·05
	83	1937		Scorpii	6·7	16	47	5·13	+3·512	3	+0·13	−0·05
	84	1938	54	Herculis	5·6	16	47	54·04	+2·638	5	+0·05	...
	85	1953	32	Ophiuchi	5·6	16	55	20·67	+2·740	5	+0·21	...
	86	1989	70	Herculis	5·6	17	13	54·10	+2·467	5	+0·27	...
*	87	1990		Scorpii	6	17	14	32·70	+3·578	3	+0·45	+0·38
	88	2004		Ophiuchi	6	17	20	9·49	+3·057	3	+0·07	−0·11
	89	2223		Sagittarii	7	19	2	14·70	+3·410	1	+0·07	−0·10
	90	2250	ρ^2	Sagittarii	5·6	19	11	56·47	+3·496	1	+0·05	...
	91	2256	χ^1	Sagittarii	6	19	14	55·64	+3·654	1	+0·17	+0·24
	92	2259	3	Vulpeculæ	6	19	15	53·00	+2·453	1	+0·35	−0·11
	93	2310		Sagittarii	6	19	33	51·62	+3·416	4	+0·60	+0·11
	94	2345		Sagittarii	7	19	49	29·27	+3·564	1	+0·27	0·00
	95	2353	χ	Sagittæ	6	19	52	22·72	+2·706	2	+0·07	+0·05
*	96	2363	τ	Aquilæ	5·6	19	55	50·13	+2·929	1	+0·21	...
	97	2370	i	Vulpeculæ	5·6	19	59	35·12	+2·573	2	−0·29	...
	98	2373	ξ^1	Capricorni	6·7	20	2	31·99	+3·331	1	+0·20	−0·33
	99	2375	ξ^2	Capricorni	6	20	2	57·13	+3·335	1	+0·21	+0·21
	100	2383	l	Vulpeculæ	5·6	20	7	15·60	+2·460	2	+0·19	...

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				h	m	s	s		s	s
101	2431	ρ Vulpeculæ	5·6	20	29	49·42	+2·554	4	0·00	...
102	2456	13 Delphini	5·6	20	39	23·01	+2·971	5	−0·06	...
103	2495	λ Equulei	6	20	53	49·62	+2·957	2	−0·01	+0·08
104	2504	A Capricorni	5·6	20	57	10·69	+3·528	3	+0·40	...
105	2529	Aquarii	7	21	12	50·82	+3·226	1	−0·01	+0·02
106	2531	y^1 Aquarii	6	21	13	49·39	+3·225	1	+0·01	+0·22
107	2535	β Equulei	5·6	21	14	27·29	+2·974	2	+0·23	...
108	2564	5 Pegasi	5·6	21	29	48·32	+2·795	2	+0·64	...
109	2589	11 Pegasi	5·6	21	38	36·62	+3·042	3	+0·69	...
110	2599	Aquarii	7	21	43	52·85	+3·131	1	+0·30	−0·02
111	2603	B Pegasi	5·6	21	45	19·84	+2·721	2	+0·14	...
112	2612	20 Pegasi	5·6	21	52	48·70	+2·914	3	+0·51	...
113	2642	φ Piscis Austr.	5·6	22	4	10·52	+3·384	3	+0·62	...
114	2666	C Pegasi	5·6	22	13	28·53	+2·757	3	+0·10	...
115	2682	H^2 Pegasi	5·6	22	19	15·19	+3·030	2	+0·56	...
116	2686	*f* Aquarii	6	22	21	10·74	+3·222	1	+0·81	−0·52
117	2723	g^2 Aquarii	6	22	38	24·61	+3·242	1	+0·17	0·00
118	2731	σ Pegasi	5·6	22	43	47·54	+2·999	5	+0·51	...
119	2732	K Aquarii	6	22	44	31·02	+3·164	1	+0·26	−0·21
120	2738	1 Piscium	6	22	46	17·36	+3·067	2	−0·27	−0·25
121	2740	ρ Pegasi	5·6	22	46	40·35	+3·010	1	+0·78	...
122	2767	*m* Pegasi	5·6	23	0	56·90	+3·022	2	+0·08	...
123	2815	15 Piscium	7	23	26	47·29	+3·067	2	+0·66	+0·07
124	2841	*n* Piscium	5·6	23	39	12·14	+3·076	2	+0·36	...
125	2863	ψ Pegasi	5·6	23	49	6·69	+3·040	3	+0·08	...

Notes.

183 A.S.C. Observed with a 20-inch transit.

635 A.S.C. Too bright for a star of the 5·6 mag. The star (17) of this cat. is 2′ 5″ south of *o′* Orionis, and rather fainter than it.

637 A.S.C. Not noticed as faint.

			s.
743 A.S.C.	Mean of two observations in	1835	19·27
	„ „	1836	19·57
	„ „	1838	19·67

		s.
779 A.S.C.	Mean of three observations in 1835	55·83
	Mean of two observations in 1836	56·20

805 A.S.C. Only just visible. Observation made in consequence of Mr. Wrottesley's note upon the star. There are several faint stars in its neighbourhood.

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908 A.S.C. Mean of two observations in 1836 ... ... 14·80 s.
„ „ 1838 ... ... 15·00

917 A.S.C. β Canis Minoris. Observed with a 20-inch transit. [Same as in previous catalogue.—Eds.]

1132 A.S.C. A faint star. "Faint" also in Wrottesley's catalogue, but this star was looked for with a declination of + 25° 53′ (instead of + 26° 53′), and is not the star observed by Wrottesley.

The stars marked 7th mag. in the A.S.C. are by no means of equal brightness.

1336 A.S.C. All four observations greater than Wrottesley.

1548 A.S.C. A faint star.

1651 A.S.C. The five partial results are
s.
57·31
57·41
57·34
57·42
57·44
One obervation was made in 1836, and the four following in 1838.

Mean ... ... 57·38 [The difference is explain-
Wrottesley ... 57·74 ed by p.m. $-0^s{\cdot}06$.—Eds.]

1709 A.S.C. Marked "too faint" at each observation. "Faint" also in Wrottesley. Mr. Baily has the words "no modern observation" opposite to it in his address.

1752 A.S.C. Excessively faint. Caught with difficulty on two wires. Date of the observation March 24, 1838. This star is called "variable" by Wrottesley.

On the day before (March 23) a star [about 3′ south of 1752 A.S.C., R.A. $15^h\ 19^m\ 58^s{\cdot}64$ (1830)] was observed by mistake for it. [This star is ζ^2 Libræ = B.A.C. 5026.—Eds.]

1918 A.S.C. Greater than Pond $+0^s{\cdot}16$.

1990 A.S.C. The mean places are
s.
32·85 ... ... observed in 1836
32·56 ... ... „ 1838
32·70 ... ... „ 1838

2363 A.S.C. τ Aquilæ. Mean of ten observations with a 20-inch transit, $50^s{\cdot}08$ (1830). Greatest difference from the mean $0^s{\cdot}38$. [Position from the first catalogue.—Eds.]

N.B.—The second, third, fourth, and sixth columns are copied from the A.S.C.

Note.—The following corrections should be made to Snow's comparisons with other catalogues.—Eds. *M.N.*

				s					s
No. 14.	Greater	than	A.S.C.	+0·12	No. 61.	Greater	than	A.S.C.	−0·29
20.	„	„	„	+0·02	64.	„	„	„	−0·14
24.	„	„	„	−0·17	84.	„	„	„	+0·25
32.	„	„	Wrottesley	+0·04	88.	„	„	„	−0·07
40.	„	„	A.S.C.	+0·35	89.	„	„	„	−0·07
45.	„	„	„	+0·34	96.	„	„	„	+0·24
46.	„	„	„	−2·77	98.	„	„	„	−0·20
57.	„	„	„	−0·03	99.	„	„	Wrottesley	−0·12
58.	„	„	„	−0·41	104.	„	„	A.S.C.	+0·70
59.	„	„	„	+0·29	125.	„	„	„	+0·16

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Erratum in the Nautical Almanac for 1903.

(*Communicated by the Superintendent of the Nautical Almanac.*)

The assumed mean right ascension for 1903·0 of the star D.M. + 16°, 1363 (p. 494 of *Nautical Almanac* 1903) is $4^{s}\cdot5$ too great. In consequence of this the times of occultation of this star on March 8, April 4, and September 15 (pp. 537 and 539) must be diminished by about 2^{m} in each case.

H.M. Nautical Almanac Office:
1903 *June* 11.